

Application No.: 10/762,070

Docket No.: JCLA12713

REMARKSPresent Status of the Application

The Office Action rejected all presently-pending claims 1-17. Specifically, the Office Action rejected claims 1 and 4 under 35 U.S.C. 103(a), as being unpatentable over applicant's admitted prior art (hereafter PA) in view of Nyseth et al. (U.S. 6,010,008; hereafter Nyseth). The Office Action also rejected claims 2-3 and 5 under 35 U.S.C. 103(a) as being unpatentable over PA and Nyseth and further in view of Baseman et al. (U.S. 5,346,518; hereafter Baseman). The Office Action rejected claims 7 and 14-17 under 35 U.S.C. 103(a), as being unpatentable over PA in view of Dickinson et al. (U.S. 2003/0232512 A1; hereafter Dickinson). The Office Action rejected claim 8 under 35 U.S.C. 103(a), as being unpatentable over PA and Dickinson and further in view of Nyseth. The Office Action rejected claims 9-13 under 35 U.S.C. 103(a), as being unpatentable over PA, Dickinson and Nyseth and further in view of Baseman. Applicant has amended claim 7 and canceled claim 8 to improve clarity. After entry of the foregoing amendments, claims 1-7 and 9-17 remain pending in the present application, and reconsideration of those claims is respectfully requested.

Summary of Applicant's Invention

The Applicant's invention is directed to a SMIF box for holding a reticle and a reticle loading system. The SMIF box has a box cover and a base pedestal and an O-ring is placed in the circular groove of the box cover to hermetically seal the box cover with the base pedestal. Furthermore, as for the reticle loading system, other than the SMIF box, there is a SMIF box

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loader for loading a reticle from the SMIF box. The SMIF box loader comprises an gas inlet and an gas outlet on the body of the SMIF box loader.

**Discussion of Office Action Rejections**

*The Office Action rejected claims 1 and 4 under 35 U.S.C. 103(a), as being unpatentable over applicant's admitted prior art (hereafter PA) in view of Nyseth et al. (U.S. 6,010,008; hereafter Nyseth).*

Applicant respectfully traverses the rejection and respectfully submits that claim 1 has been already distinguishable over the cited arts for at least the reasons set forth below. As stated above, claim1 recites:

Claim 1. A standard mechanical interface (SMIF) box for storing a reticle, comprising:  
a base pedestal for **holding the reticle**; and  
a box cover fitting with the base pedestal, including **an O-ring between the base pedestal and the box cover** for hermetically sealing the SMIF box.

*(Emphasis added).* Applicants submit that claim 1 patently define over the cited arts for at least the reason that the cited art fails to disclose at least the features emphasized above.

More specifically, PA fails to teach or suggest using a sealing material such as O-ring between the box cover and the base pedestal. Therefore, there is **no motivation** for people skilled in the art to modify PA by referring to Nyseth's application. In addition, although Nyseth disclose an idea of using O-ring, Nyseth emphasizes that "**the breaks or openings other than at the front door** are circular in shape and are sealed such as by O-ring"(col. 3, lines 23-25).

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That is, at the front door portion of the container portion 22 disclosed by Nyseth, no O-ring is used to seal the door 24 with the container portion 22 (emphasized by Nyseth). As for the SMIF box of the present invention, the only "door" for loading the reticle inside the SMIF box or removing away the reticle outside from the SMIF box is the box cover. Apparently, Nyseth teaches away from the present invention. Hence, even though people skilled in the art did modify PA by referring to Nyseth's application, the combination result would not possess the claimed features the same as what the present invention has.

"The combination of elements from non analogous sources, in a manner that reconstructs the applicant's invention only with the benefit of hindsight, is insufficient to present a *prima facie* case of obviousness." In re Oetiker, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). Obviously, Nyseth disclosure is a container for storing a slot of "wafers" which is different from the SMIF box designed for holding only one "reticle". Therefore, it is unreasonable for people skilled in the art and want to modify the conventional SMIF box by referring to a container for storing a slot of wafers provided by Nyseth.

Hence, Applicant respectfully submits that PA in view of Nyseth fails to render claim 1 unpatentable. Thus, reconsideration and withdrawal of this rejection are respectively requested.

Claim 4, which depends from claim 1, are also patentable over the combination of PA and Nyseth, at least because of their dependency from an allowable base claim.

*The Office Action also rejected claims 2-3 and 5 under 35 U.S.C. 103(a) as being unpatentable over PA and Nyseth and further in view of Baseman et al. (U.S. 5,346,518; hereafter Baseman).*

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Since claims 2-3 and 5 are dependent claims which further define the invention recited in claim 1, Applicant respectfully asserts that these claims also are in condition for allowance according to the same reasons as discussed above for the rejection 103. Thus, reconsideration and withdrawal of this rejection are respectively requested.

The Office Action rejected claims 7 and 14-17 under 35 U.S.C. 103(a), as being unpatentable over PA in view of Dickinson et al. (U.S. 2003/0232512 A1; hereafter Dickinson). The Office Action rejected claim 8 under 35 U.S.C. 103(a), as being unpatentable over PA and Dickinson and further in view of Nyseth.

Applicant respectfully traverses the rejection and respectfully submits that amended claim 7 and claim 16 have been already distinguishable over the cited arts for at least the reasons set forth below. As stated above, amended claim 7 and claim 16 recite respectively:

Claim 7. A reticle loading system, comprising:

an SMIF box for storing a reticle, comprising a base pedestal for holding the reticle and a box cover fitting with the base pedestal, wherein the box cover has a circular groove at inner surface thereof and an O-ring is placed in the circular groove for hermetically sealing the box cover and the base pedestal; and

a hermetic SMIF box loader for separating the base pedestal from the box cover and taking in the base pedestal with the reticle thereon.

Claim 16. An SMIF box loader for loading a reticle from an SMIF box storing the reticle, comprising:

a hermetic body for loading the reticle from the SMIF box; and  
an inert gas inlet and an air outlet on the hermetic body.

*(Emphasis added).* Applicants submit that amended claim 7 and claim 16 patently define over the cited arts for at least the reason that the cited art fails to disclose at least the features emphasized above.

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With regard to the PA, Applicant respectfully submits that PA fails to teach or suggest the use of O-ring stuffing in the circular groove along the edge of the box cover. As for Nyseth, Nyseth apparently teaches away that "the O-ring is used to seal the front door with the container" which has been clearly discussed above from the 103 rejection. Furthermore, according to Dickinson, Dickinson emphasizes that the chamber 20 is designed for the manufacturing process therein but fails to disclose that the purpose of designing the chamber 60 is merely for loading a reticle. Obviously, Dickinson prefers to focus on the process environment rather than the contamination issue happens in the SMIF loader for loading the reticle. Hence, Applicant respectfully submits that there is no motivation for modifying PA by referring to Nyseth and Dickinson to overcome the moisture and contamination problems in the SMIF loader and the reticle loading system.

Besides, the chamber 20 provided by Dickinson is used for performing a semiconductor process on a substrate on a substrate support device 40 within the chamber 20 and the container disclosed by Nyseth is used for storing a slot of "wafers" which is different from the SMIF box designed for holding only one "reticle". Hence, skilled people who are suffering from the moisture and contamination problems on the reticle inside the SMIF box and the SMIF loader would not image to modify PA by referring to Nyseth's wafer container and Dickinson's process chamber.

Hence, Applicant respectfully submits that PA in view of Dickinson and Nyseth fails to render claims 7 and 16 unpatentable. Thus, reconsideration and withdrawal of this rejection are respectively requested.

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Claims 14-15 and 17, which depend from claims 7 and 16 respectively, are also patentable over the combination of PA, Dickinson and Nyseth, at least because of their dependency from an allowable base claim.

*The Office Action rejected claims 9-13 under 35 U.S.C. 103(a), as being unpatentable over PA, Dickinson and Nyseth and further in view of Baseman.*

Since claims 9-13 are dependent claims which further define the invention recited in claim 7, Applicant respectfully asserts that these claims also are in condition for allowance according to the same reasons as discussed above for the rejection 103. Thus, reconsideration and withdrawal of this rejection are respectively requested.

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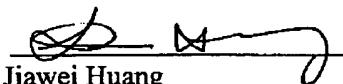
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**CONCLUSION**

For at least the foregoing reasons, it is believed that the pending claims 1-7 and 9-17 are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

Respectfully submitted,  
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